

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: SIERRA PACIFIC POWER COMPANY - NORTH VALMY GENERATING STATION

Section VI. Specific Operating Conditions

A. Emission Unit #S 2.001 location North 4525.39 km, East 487.28 km, UTM (Zone 11)
System 01 - Unit #1 Boiler

S2.001 Babcock & Wilcox balanced draft, dry bottom, opposed wall fired geometry boiler, model #FM 9-30 OF-36, serial #82-7501.

1. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program
Air Pollution Equipment

Control system consisting of:

- a. Baghouse to control particulate matter emissions rated at a volumetric flow rate of 674,931.4 dry standard cubic feet per minute (DSCFM), based on maximum heat input to the boiler while burning coal. The volumetric flow rate may be determined by utilizing Method 2 - *Determination of Stack Gas Velocity and Volumetric Flow Rate* as referenced in 40 CFR Part 60, Appendix A.
- b. Air atomized ignitors to control particulate matter and opacity during startup and for flame stabilization.
- c. Multi-stage combustion to control nitrogen oxides emissions.

2. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program

a. Emission Limits

On and after the date of startup of S 2.001, Sierra Pacific Power Company - North Valmy Generating Station will not discharge or cause the discharge into the atmosphere from the exhaust stack of S 2.001, the following pollutants in excess of the following specified limits:

- (1) SIP 445.731 Federally Enforceable SIP Requirement - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.166 pound per million Btu, nor more than 426.12 pounds per hour.
- (2) NAC 445B.362 State-Only Requirement - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.166 pound per million Btu, nor more than 426.12 pounds per hour.
- (3) 40 CFR 60.42(a)(1) Federally Enforceable NSPS Regulation - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.10 pound per million Btu, based on a 3-hour rolling average.
- (4) Article 8.2.1.2 Federally Enforceable SIP Requirement - The discharge of sulfur to the atmosphere will not exceed 1,536.00 pounds per hour.
- (5) NAC 445B.373 State-Only Requirement - The discharge of sulfur to the atmosphere will not exceed 1,536.00 pounds per hour.
- (6) 40 CFR 60.43(a)(2) Federally Enforceable NSPS Regulation - The discharge of SO₂ (sulfur dioxide) to the atmosphere will not exceed 1.2 pound per million Btu, based on a 3-hour rolling average.
- (7) 40 CFR 60.44(a)(3) Federally Enforceable NSPS Regulation - The discharge of NO_x (nitrogen oxides) to the atmosphere will not exceed 0.70 pound per million Btu, based on a 3-hour rolling average.
- (8) 40 CFR Part 65 - The discharge of NO_x to the atmosphere will not exceed 5,157.9 tons per year, based on 0.46 pound per million Btu and a 12 month rolling annual average.
- (9) SIP 445.721 (Federally Enforceable SIP Requirement) - Unless otherwise provided in NAC 445.721 to 445.724, inclusive, no owner or operator may cause or permit the discharge into the atmosphere from any stationary source of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour which is of an opacity equal to or greater than 20 percent.
- (10) NAC 445B.354 State-Only Requirement - The opacity from the S 2.001 stack discharge will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any one-hour period.
- (11) 40 CFR 60.42(a)(2) Federally Enforceable NSPS Regulation - The opacity from the stack discharge of S 2.001 to the atmosphere will not exhibit greater than 20% opacity (6-minute average) except for one six-minute period per hour of not more than 27% opacity.

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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S 2.001 (continued)

2. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program
b. Specific Acid Rain Requirements

- (1) Sierra Pacific Power Company - North Valmy Generating Station will not exceed the SO₂ emission levels (acid rain allowances) for S 2.001 in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	C Calendar Year	2005	2006	2007	2008	2009
SO ₂ (sulfur dioxide)	Acid Rain Allowance	6,958	6,958	6,958	6,958	6,958
NO _x (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)*	0.70	0.70	0.70	0.46	0.46

*Note: the NO_x emission limit is effective through December 31, 2007. The above emission limits apply only until the revised effective date or until compliance is not demonstrated in each applicable year, at which time the NO_x early election approval will be terminated.

- (2) Sierra Pacific Power Company - North Valmy Generating Station will comply with the SO₂ acid rain permit application dated December 28, 1995 entitled "Phase II Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].
- (3) Sierra Pacific Power Company - North Valmy Generating Station will comply with the Phase I Acid Rain Permit for NO_x Early Election (effective from January 1, 1997 to December 31, 1999) and the NO_x Compliance Plan dated February 29, 1996 entitled "Phase I Permit Application No_x Compliance Plan". The EPA Phase I Acid Rain Permit for NO_x Early Election and the Phase I NO_x Compliance Plan documents are hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].
3. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program
Operating Parameters
- a. Maximum allowable heat input for all combined fuel combusted in S 2.001 will not exceed 2,560.0 MMBtu/s/hr, averaged over a one-hour period.
- b. S 2.001 may combust as the primary fuel source sub-bituminous and/or bituminous coal only. The use of #2 fuel oil and "on-spec" used oil is designated for boiler startup and flame stabilization purposes during the startup or shutdown of a coal burner. "On-spec" used oil is defined as nonhazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- c. All "on-spec" used oil combusted in S 2.001 will be obtained only from Sierra Pacific Power facilities.
- d. Hours
1. S 2.001 may operate 24 hours per day.
2. S 2.001 may operate 8,760 hours per calendar year.

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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S 2.002 location North 4525.39 km, East 487.28 km, UTM (Zone 11)
System 02 - Unit #2 Boiler

S 2.002 Foster Wheeler balanced draft, dry bottom, single wall fired geometry boiler, model # Monowall, serial # 85-8051.

1. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program
Air Pollution Equipment

Control system consisting of:

- a. Spray dryer using a lime slurry with a rated 70% minimum sulfur dioxide removal efficiency.
- b. Baghouse to control particulate matter emissions rated at a volumetric flow rate of 663,991 dry standard cubic feet per minute (DSCFM), based on maximum heat input to the boiler while burning coal. The volumetric flow rate may be determined by utilizing Method 2 - *Determination of Stack Gas Velocity and Volumetric Flow Rate* as referenced in 40 CFR Part 60, Appendix A.
- c. Air atomized ignitors to control particulates and opacity during startup and for flame stabilization.
- d. Multi-stage combustion to control nitrogen oxides emissions.

2. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program

a. Emission Limits

On and after the date of startup of S 2.002, Sierra Pacific Power Company - North Valmy Generating Station will not discharge or cause the discharge into the atmosphere from the exhaust stack of S 2.002, the following pollutants in excess of the following specified limits:

- (1) SIP 445.731 Federally Enforceable SIP Requirement - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.162 pound per million Btu, nor more than 466.65 pounds per hour.
- (2) NAC 445B.362 State-Only Requirement - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.162 pound per million Btu, nor more than 466.65 pounds per hour.
- (3) 40 CFR 60.42a(a)(1) Federally Enforceable NSPS Regulation - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.03 pound per million Btu.
- (4) Article 8.2.1.2 Federally Enforceable SIP Requirement - The discharge of sulfur to the atmosphere will not exceed 1,728.61 pounds per hour.
- (5) NAC 445B.373 State-Only Requirement - The discharge of sulfur to the atmosphere will not exceed 1,728.61 pounds per hour.
- (6) NAC 445B.378 State-Only Requirement - The allowable emission of sulfur from fossil fuel-fired power generating unit Number 2 Sierra Pacific Power Company - North Valmy Generating Station's North Valmy Station, located in Air Quality Control Region 147, Basin 64, Clovers Area, must not be greater than 0.3 lb/10⁶ Btu (0.135 kg/10⁶ kg-cal). The efficiency of the capture of sulfur must be maintained at a minimum of 70 percent, based on a 30-day rolling average.
- (7) 40 CFR 60.43a(a)(2) Federally Enforceable NSPS Regulation - The discharge of SO₂ (sulfur dioxide) to the atmosphere will not exceed 0.60 pound per million Btu's, based on a 30-day rolling average.
- (8) 40 CFR 60.44a(a)(1) Federally Enforceable NSPS Regulation - The discharge of NO_x (nitrogen oxides) to the atmosphere will not exceed 0.50 pound per million Btu's, based on a 30-day rolling average.
- (9) 40 CFR Part 65 - The discharge of NO_x to the atmosphere will not exceed 5,804.7 tons per year, based on 0.46 pound per million Btu and a 12 month rolling annual average.
- (10) SIP 445.721 (Federally Enforceable SIP Requirement) - Unless otherwise provided in NAC 445.721 to 445.724, inclusive, no owner or operator may cause or permit the discharge into the atmosphere from any stationary source of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour which is of an opacity equal to or greater than 20 percent.
- (11) NAC 445B.354 State-Only Requirement - The opacity from the S 2.002 stack discharge will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any one-hour period.
- (12) 40 CFR 60.42(a)(b) Federally Enforceable NSPS Regulation - The opacity from the stack discharge of S 2.002 to the atmosphere will not exhibit greater than 20% opacity (6-minute average) except for one six-minute period per hour of not more than 27% opacity.

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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S 2.002 (continued)

b. Specific Acid Rain Requirements

- (1) Sierra Pacific Power Company - North Valmy Generating Station will not exceed the SO₂ emission levels (acid rain allowances) for S 2.002 in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	Allowance /Emission Limit	2005	2006	2007	2008	2009
SO ₂ (sulfur dioxide)	Allowance Allocation	4,261	4,261	4,261	4,261	4,261
NO _x (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)	0.50	0.50	0.50	0.46	0.46

Note: the NO_x emission limit is effective through December 31, 2007. The above emission limits apply only until the revised effective date or until compliance is not demonstrated in each applicable year, at which time the NO_x early election approval will be terminated.

- (2) Sierra Pacific Power Company - North Valmy Generating Station will comply with the SO₂ acid rain permit application dated December 28, 1995 entitled "Phase II Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].
- (3) Sierra Pacific Power Company - North Valmy Generating Station will comply with the Phase I Acid Rain Permit for NO_x Early Election (effective from January 1, 1997 to December 31, 1999) and the NO_x Compliance Plan dated February 29, 1996 entitled "Phase I Permit Application NO_x Compliance Plan". The EPA Phase I Acid Rain Permit for NO_x Early Election and the Phase I NO_x Compliance Plan documents are hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].

3. NAC 445B.316 (445.7114) Federally Enforceable Part 70 Program Operating Parameters

- a. Maximum allowable heat input for all combined fuel combusted in S2.002 will not exceed 2,881.02 MMBtu's/hr, averaged over a one-hour period.
- b. S2.002 may combust as the primary fuel source sub-bituminous and/or bituminous coal only. The use of #2 fuel oil and "on-spec" used oil is designated for boiler startup and flame stabilization purposes during the startup or shutdown of a coal burner. "On-spec" used oil is defined as non-hazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- c. All "on-spec" used oil combusted in S2.002 will be obtained only from Sierra Pacific Power facilities.
- d. Hours
1. S 2.002 may operate 24 hours per day.
 2. S 2.002 may operate 8,760 hours per calendar year.

NO. AP4911-0457

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Section XI. Amendments

July 6, 2007 - Modified S2.001 and S2.002 (Unit #1 and Unit #2 Boilers) to include operation with overfire air. Reduced the nitrogen oxides (NO_x) emission limit for both units to 0.46 lb/MMBtu.

This permit:

1. Is non-transferable. (NAC 445B.287)(445.704) Federally Enforceable Part 70 Program
2. Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only Requirement)
3. Will expire and be subject to renewal five (5) years after the issuance date of August 17, 2000. (NAC 445B.315)(445.7112) Federally Enforceable Part 70 Program
4. A completed application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 180 calendar days, but no earlier than 18 months, before the expiration date of the current permit for Class I sources. (NAC 445B.323.2) (445.713.2)
5. Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. 0(NRS 445B.340)(State Only Requirement)

THIS PERMIT EXPIRES ON: August 17, 2005

Signature _____

Issued by Matthew A, DeBurle, P.E.

Supervisor, Class I Permitting Branch

Bureau of Air Pollution Control

Phone (775) 687-4670 **Date** July 10, 2007

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